010073U2 PATENT

Please amend the specification as follows:

Page 13, paragraph number 0063, please replace the paragraph with the following paragraph:

[0063] After downconversion, the I and Q signals are processed along respective signal paths 365A, 365B. The I signal path 365A is representative of both signal paths, and may include an amplifier 360A, an anti-aliasing filter 370A, and an I channel analog-to-digital converter (ADC) 380A. Amplifier 360A is coupled to the output of mixer 340A. After processing and analog-to-digital conversion along the respective signal paths, digital I channel data 382 and Q channel data [[~~385~~]] 384 may be further processed. In some embodiments, the I and Q signals may be processed along operating mode-specific paths. In other embodiments, I and Q signal paths may be shared among modes.

Page 13, paragraph number 0066, please replace the paragraph with the following paragraph:

[0066] Switch 440 may be configured to have multiple positions. In FIG. 6, switch 440 is a cross-point switch having three positions. In a first position (1-2), described herein as "Feedforward," switch 440 couples VCO 420 to the input of a divider 430. In a second position (2-3), "Feedback," switch 440 couples the output of mixer 450 to the input of divider 430. In a third position (1-3), "Bypass," switch 440 couples VCO 420 to the output of mixer 450 and the [[~~output~~]] second input of mixer 450 is disabled. Although system 400 is shown to contain a switch, in other embodiments, system 400 need not contain a switch. For instance, VCO 420 may be directly coupled to divider 430. The position of switch 440 may be controlled by a control mechanism (not shown), such as a band select, depending on the frequency band of received RF signals

Page 17, paragraph number 0078, please replace the paragraph with the following paragraph:

[0078] As discussed, second divider [[~~470~~]] 460 may create quadrature LO signals 480. The I and Q mixers 340A, 340B receive the quadrature LO signals 480, which may be passed by buffers 351A, 351B, as inputs. As such, phase variations in the load resistance and capacitance of I and Q mixers 340A, 340B may give rise to systemic errors. However, phase matching requirements may be met by implementing I and Q mixers 340A, 340B on the same chip. Thus, residual sideband specifications for a receiver may be met.

Page 20, paragraph number 0091, please replace the paragraph with the following paragraph:

[0091] When switch 640A is in the Feed Forward position, first SSB mixer 645 mixes the VCO output frequency with the first divided-down version outputted by divider 630. Similarly, second SSB mixer 650 mixes the VCO output frequency with the second divided-down version outputted by divider 630. The outputs of first and second SSB mixers 645, 650 are identical in frequency and differ in phase by 90°. The outputs of first and second SSB mixers 645, 650 are transmitter LO frequencies of system 602.

Page 21, paragraph number 0095, please replace the paragraph with the following paragraph:

[0095] Specifically, LO generation circuitry of system 602 (PLL 610, loop filter 601, first and second SSB mixers 645, 650, VCO 620, and switches 640A, 640B) may generate a receive LO frequency. A second oscillator, which is a fixed offset LO, may be coupled to an input of each of the first and second SSB mixers 645, 650. Accordingly, first SSB mixer 645 and second SSB mixer 650 may mix the receive LO frequency with the offset LO to produce the transmit LO frequency. However, it is to be appreciated that the received LO may generate spurious outputs. Thus, off-chip filtering within a transmitter or transceiver may be required to meet the conducted spurious leakage specification for the receive band. Such filtering may reject the spur product at the receive frequency.

Page 22, paragraph number 0097, please replace the paragraph with the following paragraph:

[0097] In an exemplary implementation, transmitter 600 includes three RF outputs. Two of the outputs may correspond to PCS or IMT signal bands PCSA and PCSB, and the other may correspond to Cellular bands CELL. For the PCS RF outputs, a first RF mixer 651 is coupled to SSB mixer 645 and a first baseband output of baseband processor 608. First RF mixer 651 upconverts the baseband signal directly to the desired RF frequency. A second RF mixer 653 is coupled to SSB mixer 650 and a second baseband output of baseband processor 608. Second RF mixer 653 upconverts the baseband signal directly to the same RF frequency as at the output of first RF mixer 651. The outputs of first and second RF mixers 651, 653 are in quadrature due to the relative phase difference of the LO signals used to upconvert the baseband signals.

Page 22, paragraph number 0098, please replace the paragraph with the following paragraph:

[0098] The quadrature RF signals are then coupled to a signal summer 660 that combines the two quadrature signals into a single signal. The inputs of signal summer [[~~620~~]] 660 may be balanced to correspond to the balanced outputs from each of first and second RF mixers 651, 653. The output of signal summer 660 may also be a balanced signal to minimize signal interference from common mode noise sources.

Page 22, paragraph number 0099, please replace the paragraph with the following paragraph:

[0099] The output of signal summer 620 may be simultaneously coupled to two amplifier chains. Both amplifier chains may be configured to operate in the PCS transmit band. As shown in FIG. 8, a first amplifier chain may include AGC amplifiers 662 and 664. A second amplifier chain [[~~670~~]] may include AGC amplifiers 662 and 666.

Page 23, paragraph number 00101, please replace the paragraph with the following paragraph:

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[00101] The quadrature RF signals are then coupled to a signal summer 670 that combines the two quadrature signals into a single signal. The inputs of signal summer 670 may be balanced to correspond to the balanced outputs from each of third and fourth RF mixers 652, 654. The output of signal summer 670 may also be a balanced signal to minimize signal interference from common mode noise sources.